

432 MHz AND ABOVE EME NEWS

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CONDITIONS

The alignment of both the Jan sked weekend and the ARRL's Jan VHF Sweepstakes paid dividends in activity on 432, 1296 and 2300 MHz. I know the extra contacts and multipliers (grids) were appreciated by the NA contest operators. But you do not have to be a NA station to enter the contest. So why not surprise the folks at the ARRL and submit you log. You can send it in via e-mail. I did not feel Jan SW conditions were as good as the previous few months, but reports indicate that stations were generally pleased with the conditions.

N4UK 70 CM DXPEDITION - A GREAT SUCCESS

The preliminary list of stations worked includes N4GJV, WA4NJP, KD4LT, DJ6MB, G3SEK, K1FO, K0RZ, JH0YSI, JA9BOH, HP3XUG, K5JL, VE1ALQ, UR5LX, DL9NDD, DK3WG, HB9SV, PA3CSG, DL3YEL, K2UYH and DF3RU, and more to come. Send QSLs to Ken Ramirez, 221 Beaverdam Creek Rd, Gray Court, SC 29645. After their success from SC, Ken N4UK and Terry WD8ISK are considering going to WV or even KY for the EUR contest. [Let's give them LOTS of encouragement ... and TNX for a job well done!]

EUROPEAN EME CONTEST

Contrary to the date printed in DUBUS, QST and the last NL, the 144/1296 weekend for the EUR EME contest has been changed to 15/16 March. This is DEFINITE. The change was made because of the low dec of the originally proposed weekend -- see the rules at the end of this NL.

7M2PDT

Shu invites his EME friends to visit his WEB site, which has recently changed address. He writes -- my new URL is [Shu, 7M2PDT](#). My e-mail ID, [7M2PDT](#), has not changed, but please send photo data (jpeg.gif, etc) to j-7m2pdt@sannet.ne.or.jp. I got an MFJ-784B DSP filter before the Jan SW. It definitely improved my reception. I can hear weak signals more clearly than before. I worked on 18 Jan WI7Z for initial #70, KA0RYT #71, G3HUL #72, HB9SV #73 and 4X1IF #74. I heard W7CI, DL9NDD, JS3SIM, UR5LX, SM3AKW and DL4KG (echoes - not full call). I sent (O) reports to G4ALH, but lost him before I had R's - the moon was on my horizon at the time. I heard nil from W1ZX, NA4N, W8MQW, N4PZ, K6MYC, DK3FB, OH3LWP, IK0EQJ, UT7VF, EA8/ON5FF and CT1DMK in skeds. A full year has passed since I began 432 EME operation. I am at initial #74 and hope to reach #100 soon.

AL7JM

Mike writes -- I want to let the gang know that I am going to be active again on 70 cm EME starting in Feb. I have had some equipment and other problems. I ended up replacing some of my gear and just finished getting the my HPA working again. I will listen around during the next 432 SW.

DL3EAG

Stephan writes -- Due to my winter holidays, I was only QRV for a few hours during the Jan SW. I had only one contact, JA9BOH (O/O). Heard were K1FO and K2UYH working DL4KG with (429) reports. Skeds, (for both myself and DL4KG), are always welcome. Send requests to my E-Mail address or DL4KG's BBS [Stephan, DL3EAG](#)

DL4KG

Gerald had the following contacts during Jan. He worked on 11 Jan I5MPK (539/559), on 17 Jan UR5LX (O/O), K1FO (439/449) and DL9NDD (M/M), on 18 Jan JA5OVU (O/O), K4QIF (539/449) and DF3RU (O/O), and on 19 Jan K2UYH (549/439), K1FO (549/439), SM3AKW (O/O), JA9BOH (O/O) and DL9KR (559/549). Heard were ON4KNG, LX1DB, KD4LT, KA0RYT and DJ6MB. After solving problems with his T/R relay, Gerald is now QRV with 500 W and 4 x 23 el BV yagis. [TNX DL3EAG for relaying this report.]

G3LTF

Peter e-mails -- A pretty good SW in Jan, but I had big problems with my 1296 TX driver. I apologize to all for the lousy signal and drift, and some rather abrupt QSOs. It will be fixed by the next SW. I have also been unwell with an eye virus infection, and could not stay up late for my N4UK sked. Sorry, condx seemed good - especially on 432. Activity was also high on 1296. I worked, on 432, on 17 Jan UR5LX - big Signal, DL8OBU, RA3LE, DL9NDD and DF3RU, and on 19 Jan K2UYH, ON5FF/EA8, SM3AKW, K4QI - sorry to see that old familiar call clipped, K1FO, N2IQU, W7FN, JH4JLV for initial #313, JA2KRW and JH5OVU. I heard on 432 UA6LGH, N4UK, IK0EQJ, K5WXN and G3SEK. QSO'd on 1296, on 17 Jan were W2UHI and AA6WI, on 18 Jan DD1XF, and on 19 Jan ZS6AXT, HB9BHU, GW3XYW, SM5DGX for initial #123 and K4QI. Heard were CT1DMK, EA3UM, W7GBI, LA8LF, DF9QX, OZ4MM, VE1ALQ, F2TU and CWNR MANY times from 1800 to 1830 on the 19th S59DCD. (His e-mail address doesn't seem to work for me.) He was about 6-8 dB below my echoes, so he should have heard me OK. For those inquiring about my 13 cm status, it will be some months before I am QRV again. I have to solve the problem of a 150' of feeder! Loss on 1296 is about 2.9 dB. Finally, I am not in a new grid square. I am still in IO91 - sorry for those who thought they had initials. My standings are on 432 #313, DXCC 56, grids 202 and WAS 47, on 1296 #123, DXCC 28, grids 101 and WAS 19, and on 2320 #10, DXCC 8, grids 10 and WAS 2. [Can anyone help Peter? He is looking for an address for K7ICW. He needs it for an NV QSL.]

JA9BOH

Kimio's 432 Activities in Dec -- I worked on 22 Dec at 1930 OH3LWP (O/O) for initial #276 - all other skeds were nil, on 27 Dec at 2119 DF3RU (569/559) and nil HB9SUL, on 28 Dec nil WD8ISK, CWNR K0RZ (339), JH4JLV and heard HB9SUL, and on 29 Dec at 1352 W7QX (O/O), 1429 K1FO (549/449) and 2150 RA3LE (339/449). My 432 EME QSOs by year of activity show the following interesting

pattern: 76-1, 77-2, 78-2, 79-26, 80-68, 81-112, 82-105, 83- 91, 84-47, 85-36, 86-2, 87-22, 88-68, 89-50, 90-107, 91-122, 92-76, 93-55, 94-53, 95-104 and 96-141. '96 was my greatest!

BK0RZ

Bill QSO=92d on 18 Jan on 70 cm LX1DB, K1FO, I5MPK, ON4KNG, DF3RU, K4QI, K5JL, NC1I, G3SEK, SM4IVE, DL9NDD, OK1KIR and VE1ALQ, on 19 Jan N2IQU, N4GJV, DJ6MB, N4UK (O/O) for initial #231, W7FN, JR9NWC, JA5OUV, JH4JLV, JA2KRW, JA3IAF and DK3WG, and on 20 Jan KD4LT, WA8WZG (O/O) #232 and K5JL. Heard during the SW were DL9KR, UR5LX, HB9SUL, WA4NJP and CT1DMK. Condx and activity were good during SW. Bill continues using fixed vert pol.

K1FO

Steve found conditions excellent in Jan with very good activity. Steve has decided that he must have water in something (probably his phasing lines or baluns). When he 1st put up the 24 yagi array, he had only 2 w reflected for 1500 Watts forward. About 18 months ago the reflected power went up to 25 - 40 w (it varies). Over the activity weekend there were very cold temperatures (down to -5 deg F) and it never went above 20 deg F at Steve's QTH. During the cold spell reflected power went down to 2 w. After the weekend when temperatures returned to the 30 deg F range his reflected power went back up to 30 w. He is now wondering how much conditions contributed to the big signals in Jan and how much was due to the cold temperatures. Worked on 12 Jan were N2IQU and DL8OBU, on 14 Jan JA5OVU, On 16 Jan JA5OVU, on 17 Jan UR5LX, SM3AKW, UA6LGH, DL9NDD, EA3DXU and DL4KG for initial #508, on 18 Jan KA0RYT, I5MPK, DL9KR, UR5LX, W8MQW, KA0RYT, OK1KIR, K5JL, SM4IVE, DF3RU and W0KJY, on 19 Jan NA4N, DK3FB, SM3AKW, DL4KG, G3SEK, EA4LY #509, G3LTF, K5WXN, N4UK #510, DL9NDD, N2IQU, DK8VS, UA6LGH, DK3WG, YO2IS and I5TDJ, and on 20 Jan KD4LT, WA8WZG, WA4NJP, NA4N and CT1DMK. Almost all stations worked on the 18-20th sent grid square exchanges. Steve wants to extend his thanks to all that sent grid squares for the ARRL VHF contest. Steve received a QSL card from Bud, W6VPH who is running 4 x 40 el satellite crossed Yagis and 1200 watts from a pair of 4CX400A's. Bud doesn't list a grid square, but according to the map he is in DM04. In regards to Ian's comments about abbreviations for polarity.

Steve is in agreement with Ian's suggestion that a set of polarity abbreviations be defined and adopted. He notes that several stations are already using similar abbreviations such as "RX P VVV" and "TX P HHH" to let the station that they are working know what their pol is. However there is no standardization of these abbreviations. Before the EME community adopts a "polarity language" we may want to think over some options. For example when one station asks another to transmit vertical "VVVVV?" the other station may already be vertical. The real objective may be to get the other station to switch pol by 90 deg or possibly by 45 deg. Does an abbreviation such as "PS?" or "P9" which would mean change your TX polarity by 90 deg make sense? Steve also suggests that abbreviations be used for 45 deg polarity. Some suggestions are "/" or "5". To tell a station that you are transmitting at 45 deg you would send "TX P/" or "TX P 5". These could also be extended to + or - 45. It could be assumed that "P/" or "P 5" would mean clockwise 45 deg (as viewed from the rear of the array". To indicate counter clockwise either "M" for minus or "C" for counter-clockwise could be used, e.g., "RX P M/" means that you are receiving at counter clockwise 45 deg. Steve would like to hear suggestions from other EME operators. He feels there are probably lots of good ideas out there, and offers to act as center for collecting suggestions. After some more ideas are put forth he draft a "universal polarity language".

70 cm EME totals for K1FO are 510 initials, 49 states and 75 DXCC.

KB3PD

Rick reports -- By the time you are reading this my 10.5' dish for 1296 should be down. In it's place will be 6 x 29 el yagis for 432. I need only 2 more States to finish 432 WAS and have decided to try to get them this year. The states are Arkansas and Nebraska. The yagis should be up by the end of March. So for the time being no 1296 skeds. I will let you know when I am ready for skeds on 432. After I complete WAS on 70 cm, I plan on moving the yagis to my other tower, and putting up a 15' dish for 1296. My totals on 1296 EME are as follows: initial #32, WAS 16 and DXCC 9. I want to thank

everyone who ran a skeds with me on 1296. Even if we didn't make it, it all added up to lots of fun. And thanks to all who helped me put Del on 1296 EME.

KD4LT

Scott had a very good weekend in Jan with 3 initials worked. They were N4UK #295, WA8WZG #296 and CT1DMK #297. With the ARRL VHF contest and the SW on the same weekend, activity and EME interest was very good. Other stations worked were UR5LX (559/569), RA3LE (549/559), UA6LGH (449/559), EA3DXU (449/549), DK3WG (559/549), K0RZ (559/559), KA0RYT (549/559), K2UYH (559/559), WA8WZG (O/O), K1FO (559/569), CT1DMK (M/O) and N4UK (O/O). Other stations heard include SM3AKW, W1ZX, K4QI, N2IQU, LX1DB, YO2IS, DJ6MB and DF3RU.

NL7F

Bill's activity report follows -- I had contacts on 19 Jan with LA8LF (M/O), WD5AGO (M/O) and W2UHI (M/529), on 20 Jan with VE4MA (M/O), and on 21 Jan with VE3ALQ (O/O) and VE3BQN (M/M). Skeds with IK3COJ, SM3AKW and ZS6AXT were unsuccessful. I have a problem with trees to an el of about 20 degs at moonrise, and north of azimuth 280 at moonset. My transmissions are getting out, but I can't hear thru the trees. I suspect my pol is less than optimum. I made a serious mistake by installing the antenna system during the summer. Everyone who lives north of 60 degs latitude knows that antennas installed in the summer will never work right.... Never the less, after it warms this spring, I will be re-tuning the dish feed.

OK1KIR

Tonda, OK1DAI reports on his group's EME activities in Dec and Jan - We worked on 432, on 20 Dec at 2115 UR5LX (549/539), nil HP3XUG and nil LU7DZ, on 21 Dec at 1432 JH4JLV (O/M) for initial #325, 1604 7M2PDT (449/O) #326 and 1627 JS3SIM (O/O) #327, nil JA8ERE, nil OM1TL and nil PA2CHR, on 18 Jan at 2027 PA2CHR (O/O) #328, 2041 HP3XUG (O/O), 2118 NC1I (569/569 and JN79/FN32), 2209 K1FO (559/549 and JN79/FN31), 2255 K2UYH (559/559 and JN79/FN20), 2309 K4QI (549/449 and JN79/FMO6), 2330 KORZ (449/449 and JN79/DM79) and nil N4UK. Heard in Dec were DF3RU, G3LTF, I5MPK, JA5OVU, JA9BOH, N2IQU and RA3LE. We heard in Jan 7M2PDT, DF3RU, DJ6MB, DL8OBU, DL9KR, DL9NDD, EA8/ON5FF, G3SEK, G4ALH, HB9SV, I5MPK, KA0RYT, LX1DB, N2IQU, PA3CSG, SM3AKW, SM4IVE, UR5LX, VE1ALQ, W8MQW and YO2IS. We worked on 1296, on 19 Jan at 1428 DD1XF (449/449), 1511 S59DCD (O/M) for initial #135 and DXCC 33, 1608 OH2AXH (559/549) and nil 4X6UJ. Heard on 1296 in Jan were GW3XYW, HB9BHU, JA4BLC, SM3AKW and ZS6AXT. We plan to be QRV again for the Feb SW. Our standings are as follows: 432 #328, DXCC 62, WAS 43, 1296 #135, DXCC 33, WAS 22; 2300 #31, DXCC 16, WAS 8; 5760 #7, DXCC 6, WAS 1, and 10368 #10, DXCC 9 and WAS 2.

SM3AKW

Karl reports -- The big event this month is our 1st QSO with Africa on 2304. I worked on 25 Jan at 2000 ZS6AXT for initial #11. I also QSO'd on 13 cm on 23 Jan VE4MA #10. I worked on 30 Nov, on 1296 at 2210 LA8LF and 2230 S59DCD (O/M) for initial #108, on 11 Jan on 1296 at 1420 DK7LJ (52/54) - same as DL0SHF, and on 432 at 1604 I5MPK (449/559), on 12 Jan, on 1296 at 1555 LA8LF (549/449), on 15 Jan, on 1296 at 1710 CT1DMK (559/559) and SSB (43/43) #109, on 16 Jan, on 432 at 1700 CT1DMK (M/M), on 17 Jan, on 432 at 2139 RA3LE (549/549), 2225 K1FO (559/559), 2235 EA3DXU (449/439) and 2313 DL9NDD (559/559), on 18 Jan, on 432 at 1420 JS3SIM (539/549), 1430 DF3RU (559/539) and 1929 DF3RU (559/549), on 19 Jan, on 2304 at 0005 OE9ERC (569/449), then on 432 at 0032 K2UYH (559/559), 0040 K1FO (559/559), 0050 EA8/ON5FF (O/O) for initial #295, 0125 G3LTF (449/549), 0133 K4QI (559/549), 0155 N2IQU (559/549) and 0230 CWNR N4UK, on 20 Jan, on 432 at 1400 DL4KG (O/O) #296, 1413 JA9BOH (559/449) and 1522 DL9KR (579/569), and on 1296 at 1640 S59DCD (O/O) (lost power), 1710 ZS6AXT (559/559), 1950 DF3RU (549/529), 2000 IK3COJ (439/559), 2045 SM5DGX (539/449), 2258 K4QI (559/549) and 2336 WD5AGO (549/339), and on 21 Jan at 0110 K3EAV (549/549), 0130 VE3BQN (O/O) and 0145 W2UHI (569/559). As you can see I have been quite active! I like the guys who are QRV on 13 cm to drop me an e- mail at Karl.SM3AKW

UR5LX

Sergej was impressed by the high 70 cm activity from DL, JA and the USA during the Jan SW. He worked on 17 Jan DL8OBU, G3LTF, RA3LE, DL9NDD, DF3RU, K1FO, KD4LT, EA3DXU, DL4KG (O/O) for initial #306, UA6LGH and DK3FB, on 18 Jan JA3IAF, JH4JLV, JH0YSI, G3HUL, JS3SIM, JA9BOH, ON4KNG, S52CW, DL9KR, K1FO, W9MQW, K5JL, I5MPK, G4ALH and NA4N, and on 19 Jan WI7Z (O/O) #307, W7FN, VE1ALQ and N4UK (O/O) #308. Sergej CWNR KL7HFQ.

VE1ALQ: Darrell says -- We had not that bad of a weekend considering the very, very cold temp. I was not able to operate the 1st night because my el motor would not run at -35 degs. The 2nd night the temp stayed at around -25 and the el did work but very, very slow. I completed with IK0EQJ on sked and N4UK on random. Both with very good signals. I also worked K4QI from his new grid and call sign for 3 initials on 70 cm. On 1296 I did not complete with 4X6UJ. I sent him (M's) about half way through the sked, but there was only one sequence I heard him at all. Thanks to my friend EA5DOM and PA3BZO I now have software (EPROM firmware) that will allow my "encoder" board to be used with the VK3UM tracking hardware and software. The VK3UM board requires 4 X 4 BCD inputs. If anyone now wants to replace their potentiometers in the field to the much more versatile "encoder" they can now use my "encoder" interface board with the new firmware. I just checked it out using my existing board and it works FB. This will also allow you to interface 4 X 7 segment displays giving a readout for manual operation if one wishes. This is what I did to check out my system. Any one wishing the firmware and/or burned EPROMS to interface the VK3UM card to my encoder board please contact me. I now have revised schematics for the "encoder board" that will allow you to quadruple your encoder output for higher counts/degs. This will also eliminate encoder false counting that becomes a real problem using low input counts. I recommend this device be added to all the existing encoder boards. It can be added to existing boards very simply and easily. I also have the EPROM code that allows interfacing the SmartLevel to the VK3UM tracking interface board. This board is exactly the same as the board designed to interface the SmartLevel to the F1EHN interface and differs very little from the "encoder board". It provides 4 X 4 BCD outputs as required by the VK3UM card. This code is available for the asking + postage, or by way of Internet free. Or I can burn the EPROM's for those that need it.

W0RRY

Charlie writes -- I want to let you know that I will be back on EME soon. I just purchased my 10 m dish back, and am in the process of getting it relocated to my QTH. I plan to put a nice signal on 432 and 1296. GA is the only state I have not worked on 432, so I will be looking for it - [(KD4LT!!!) I now have 8 x 21 el yagis at 50', but don't have a preamps up at present. I am open for some suggestions on a good mount for a 10 m Kennedy type dish (RF Systems). My e-mail address is Charlie.W0RRK

W2UHI

Frank found that activity was very good on 1296 during the Jan SW in spite of the ravages of the winter WX -- Many of us had trouble with the mechanics of dish operation due to high winds and extremely cold temperatures. I contacted on Friday 17 Jan SM5DGX, GW3XYW, DF3RU, CT1DMK, AA6WI, W7GBI and G3LTF, on Saturday 18 Jan WB5LUA, N2IQU, F1ANH, DD1XF, IK3COJ, ZS6AXT, OH2AXH, SM5DGX, G4DZU, LA8LF, GW3XYW, SM4IVE and S59DCD, and on Sunday 19 Jan CT1DMK, AA6WI, W0KJY, G4CCH, WD5AGO, K3EAV, NL7F, JA6CZD, F2TU, K4QI and LX1DB. I called 4X6UJ but heard nothing. I heard that he is in the process of moving and probably could not get operational in time. I feel the choice made at the conference regarding SWs was a good one. Of course I only operate 23 cm and realize there are constraints on the lower bands. The operating times are better on all sides of the world and the higher dec gives northern latitude stations much more Moon time. At the higher decs I have been able to work 2 Japan stations on random so far.

ZS6AXT

Ivo is now QRV on 13 cm -- I suppose that you have already heard about my QSOs on 2300. On Thursday 16 Jan I had a sked with OE9ERC on 13 cm EME (receive only at my end). However I used the sense of circular pol as described a long time ago by OZ9CR in RadCom..., opposite to 23 cm, while Erich used same as on 23 cm [which is the standard now in use]. Well, I still heard Erich (539)! But his signal was fluttery. So I changed the pol the next day, and fitted the coax for TX. I thought that it was

crazy to even try to transmit, but Erich convinced me, and we tried it on Friday 17 Jan. I heard him (589) and later on SSB (55) to my surprise, he was giving me (O) reports! We tried it 2 hours later and worked again. So that's 3 1sts for me: 1st Af-Eu on 13 cm, 1st Af-OE EME on 13 cm and 1st 13 cm EME from Africa. In fact four: 1st ZS to OE on 13 cm, HI. Obviously we were both very excited! The next day I was listening to OZ4MM CQ and called him. After 2 QRZs he came back with (M) reports! I gave him (O), but he was steady (559). So I have 2 initials! I was surprised to hear that Stig was only running 30 w into his 10 m dish. This all is really QRP. Well, I am in favor of the best amplifier, good antenna, etc. Listening around on Saturday brought a few more stations, but no more QSOs. Heard were IK6EIW, EA3UM, SM3AKW and many times CWNR W4HHK (539 to 559). There was another station, but I caught only the end of his call. My equipment is a 5 m dish with W2IMU feed, (offset 5 deg above the 23 cm horn). The LNA is a DJ9BV design with NE424 (about 0.5 dB NF), transverter is the later ARRL no tune with my own design predrivers and the "final" is the DUBUS/DK2DB with two MGF0905 in parallel for 11.5 w. The losses in the feedline are approx 1.9 dB, so there is around 8.5 w at the feed!! I will be soon on with more power. On 23 cm I worked on Saturday 18 Jan N2IQU, W2UHI and F1ANH, and on Sunday 19 Jan partial NL7F (M/T), GW3XYW, SM3AKW, OE9ERC, DD1XF, G3LTF, DF3RU, F2TU, IK3COJ, SM5DGX, LA8LF, LX1DB and K4QI. I CWNR many times S59DCD (539), and also heard JA4BLC, HB9BHU and CT1DMK. On Monday a sked with NL7F did not bring a QSO, but he was up to (539). I managed to fire up a PA for 13 cm on Friday 24 Jan, but in the process of testing burned out my preamp. Thus I did not hear my echoes and did not hear Karl, SM3AKW while he heard me. I replaced the HEMT on Saturday and the Sun noise was the same as before (about 14 dB). I tried with Karl again in the evening, and we QSO'd for my initial # 3 and 1st ZS-SM contact (O/O). Karl was about (429), while my own echoes were at the time peaking (539). On Monday 27 Jan I worked WB5LUA (O/O) #4 with (579) for 1st Af - NA and ZS to W contact on 13 cm. I heard W4HHK (559) with QSB, but no QSO. Then with my dish screened about 30% by the other antenna tower, I worked VE4MA (449/449) # 5. So it looks like my 13 cm system works well. I tried a few tubes in a commercial cavity, and after few hours of tuning and optimizing the YD1304, I am getting some 85 w with 11 w drive and 27 % efficiency. This means that I have about 55 w at the feed. The above results pleased me, because this was done with the Moon close to apogee. I am looking forward to further QSOs with other stations. My new 23 cm PA is still not operational, but I should have it ready soon. I am not QRV at the moment on 70 cm. K2UYH: It was very cold during the SW, and my polarization rotator refused to turn. I tried wrapping the rotator in heat tape, but it did not heat up enough to get it going. So I was limited to fixed pol for the entire weekend. I did not do too badly despite this handicap. I QSO'd on 432 on 18 Jan at 0230 N4UK (559/559) for initial #587, 0454 JA5OVU (449/549), 0500 JA2TY (M/O) #588 - his signal was very weak with my fixed pol (Takuhei is using 4 x 33 el FO yagis, 2 x 3CX800A7 PA and FHX06 LNA), 0538 WB0GGM (549/559), 0549 JH0YSI (559/559) and 0616 KA0RYT (559/559), during the contest at 2242 DF2RU (559/569 - JN59), 2245 DL9NDD (559/569 - JN59), 2254 OK1KIR (FN20/JN79), 2302 HB9SV (549/569 - JN45), 2328 DK8VS (549/449 - JN39), 2336 K4QF (569/559 - FM06), 2343 G3SEK (559/559 - IO91) and 2358 W0KJY (549/559 - DN70), on 19 Jan at 0010 EA8/ON5FF (449/539 - IL19), 0016 EA3DXU (549/559 - JN11), 0023 DL4KG (449/549 - JO31), 0032 SM3AKW (559/559 - JP92), 0040 G3LTF (559/569 - IO91), 0124 K5WXN (549/339) and 0142 W7FN (559/559 - CN88), and on 20 Jan at 0115 N4UK (559/549 - EM84), 0129 NA4N (559/449 - FM28), 0152 KD4LT (559/449 - EM81), 0201 W1ZX (559/559 - FM18), 0210 K5JL (449/569 - EM15) and 0224 K0RZ (449/549 - DM79). I had planned to operate on 1296 the 2nd day with a new scalar feed built by KB2AH. I was itching to test it, but the WX was just too cold, so I stayed on 70 cm. The next weekend, 27 Jan, I did get the feed in place and worked at 0410 W2UHI (559/M) - I had a TX connector problem at 1st, and after repair at 0534 KB0PYO (O/O) for initial #142 and state 36. I will have more info on the new feed after I get a chance to properly evaluate it.

NETNEWS

CT1DMK is now QRV on 432 as well as 1296. Luis has a new e-mail address: CT1DMK@n10.net

F5HRY is now QRV on e-mail. He can be reached at [F5HRY](#) and invites recommendations/ideas for the 98 EME Conference in Paris.

LA8LF worked in Jan SW on 1296 NL7F and WA8WZG. Anders also has a change of e-mail address. The new address is [LA8LF](#)

DL9KR heard nil from WA8WZG and N4UK during skeds but picked both up on random later. Jan has KF0M's QSL and is awaiting QSLs from WE7P and W6VPH.

DF3RU Karl plans to be on 10 GHz EME in the spring. He needs on 70 cm the states of SC, RI, NEB, KY, ARK and HI.

W4TJ is the new call of AA4TJ.

HP3XUG is looking for 432 skeds. Louis completed with W7FN, DL9NDD, NC1I, VE1ALQ and HB9SV in Jan.

AF9Y is looking for a 70 cm station with which to conduct low power EME experiments. The station should have at least 300 kw ERP to establish condx. The station must be able to xmit on SSB from a Soundblaster sound card for 15 min tests between 1900 and 2300. Contact Mike at [Mike, AF9Y](#)

WA8WZG in Ohio is now QRV on 13 cm EME as well as 70 and 23 cm. Tom QSO'd during the SW on 23 cm LA8LF, on 70 cm KD4LT, K0RZ, K1FO, DL9NDD and DL9KR, and on 13 cm WB5LUA, VE4MA and OE9ERC.

NU7Z, Rick is now QRV on 13 cm. He worked OZ4MM, WB5LUA and VE4MA, and CWNR OE9ERC (S5 on SSB), during the SW.

K9BCT will be QRV on 70 cm and 23 cm with low power (50 w).

I6PNN is not yet QRV on 5.7 GHz. He will be on in 2 months or so.

IN3KLQ is running 600 w not 6000 w as indicated last month!

K2DH's new e-mail address is [Dave, K2DH](#). Dave is sorry for missing his Jan SW skeds, but was involved with club VHF contest operation.

NC7K was not be available for skeds during the Jan VHF contest (SW). He will take skeds in Feb.

W4HHK was QRV on 13 cm during the Jan SW. He QSO'd OZ4MM on random. Nil was copied from DF3RU. Echoes did not seem as good as in the past. WB5LUA during Jan SW worked NU7Z and WA8WZG on 13 cm.

WD5AGO, Tommy had sparks fly in his 23 cm amp during the SW. He was down to 150 w, but still worked NL7F for state 36, CT1DMK and LX1DB.

LX1DB worked on 19 Jan 16 stations on 23 cm. Willie plans to be on 13 cm in Feb.

PA3CSG worked W8MQW on 70 cm in Jan. Geert heard nil from WB6IMC, KF0M and N4UK in skeds.

W8MQW does not want skeds on 432.045 as Chuck has a TV birdie on this freq.

W7FN, Don worked UR5LX with a big signal and confirms a good one with HP3XUG.

VE6TA had an HPA problem on 1296 during the Jan SW.

K5JL added CT1DMK and N4UK to his initial list during Jan.

KF0M was QRV on 432 in Jan.

VE4MA was on 13 cm both nights of the SW and worked NU7Z, WA8WZG and SM3AKW. Barry now is up to initial #31 on 13 cm. On 1296 he QSO'd NL7F and VE3BQN, who had a strange signal.

KA0RYT QSO'd N4UK, JH0YSI, 7M2PDT and more in Jan.

W7QX worked N2IQU with the loudest signal he has ever heard on 70 cm, and=20 many more, but did not hear K6MYC.

W1ZX missed his 7M2PDT sked due to the cold WX locking up his AZ drive.

JH4JLV, Kaz is now up to initial #36 and 12 DXCC. He made 30 QSOs in '96 and is planning to extend his yagi array to do more in '97.

W7HAH, Shep had some storm damage to his yagis in Nov, but is still QRV on 432.

PA2CHR, Chris (JO22xa) is QRV with 4x35 el yagis (needs > 5 degs el) and 800 W. He plans to be active next weekend on random and will hang around on 432.019.

KB0PYO, Mark is QRV on 23 cm from MN, but still needs to improve his RX capability. He completed with K2UYH in Jan.

KB7UWC: (CN96xi) in WA, will be QRV next weekend on 23 cm with a 3 m dish and 50 w. His e-mail address is [Mark, KB7UWC](#) Mark has no el. drive as yet, so he is only good for moonrise skeds.

FOR SALE

K1FO has a **mint late model Drake TR7A** for sale. Steve is the original owner and he has the original shipping cartons. He has some accessories, including a SL4000 filter and service manual photo copy. Contact Steve, K1FO at 203-421-3377.

NU7Z is still looking for **xfmr for 1300v @ .5amps.**

AL7JM is **looking for a used IC-1271 or a transverter for 1.2 GHz.**

WA8WZG reports that he is your "**Andrews Connector Connection**". He has connectors, cables, waveguide, assorted jumpers, etc. for sale. He notes that his stock changes weekly. Call Tom a (419) 732-2944 or on e-mail at: [Tom, WA8WZG](#)

KB2AH has a **full line of cavity amps and 1, 2, 4 and 6 tube ring amps, lin/circular feed horns and LNAs**. For full details see Tom's 1296 WEB page: [Tom](#) or [KB2AH](#)

TECHNICAL

The following are some suggestions for aligning a scalar horn feed with a circular polarizer,

by Tom, KB2AH.

Tom has made many of these feeds and has lots of experience in tuning them -- One of the reasons tuning a circular pol feed horn is not always successful is the many reflections from the ground, surrounding metal objects, and the distorted patterns from the use of helical and dipole antennas. By using a standard feed horn with vertical and horizontal monopoles fed with a 90 deg hybrid to attain RHC and LHC pol, the problem of reflections is greatly reduced. In addition the inequality and asymmetries of LHC and RHC home brew helical antennas are eliminated. Unless both helical antennas have the same gain, ground plane positioning, and orientation to each other and the ground plane, their RF pattern will be different. This will show up in your tuning results.

Not all of us have access to a network analyzer, X type relays, 90 deg hybrids known to be good at 1296 MHz, power meters, a spare feed horn, and a stable LO with stable output power. So we do the best we can with what we have in terms of test equipment. No LO source, then use your exciter with an attenuator. No attenuator, then use a length of RG58. RG58 has great loss at 1296. For those few that have access to a network analyzer, I think the horn tuning drawing is self explanatory. So I will move on to the next best setup: Using a power meter and horn with a 90 deg hybrid - (see drawing). The relays are not necessary, They merely facilitate the switching back and forth from RHC to LHC, and checking return loss. Set all delay screws in the horn to 1.5". Monopoles are 2.4" long, and check the return loss (RL). Trim the monopoles for best RL. If you come up with better than -25 dB that's great, but you have only started and the RL will not stay at -25 dB. Go on to circularity testing. Setup for TX on the RHC test antenna (TA), and RX on the RHC horn under test (HUT). Note the meter reading. Switch the power meter and TX to LHC TA; RX on LHC HUT. Again note the meter reading. The 2 readings should be very close to each other. This is your ref power level. (Note if there is more than 1 dB difference in readings, your TA may not be functioning properly, or the RL on both monopoles are not the same, possibly you have faulty connectors, phasing lines or hybrid?) Move the power meter to RX on LHC HUT, TX on RHC TA. Tune the delay screws for min gain - at least 20 dB down from the ref. Start from the open end of the horn and move to the back. Turn both pairs equally, but each pair may not be necessarily screwed in to the same depth. (Note If you are using a signal generator and you can sweep 20 MHz each side of center, a plot will come in very handy.) Switch to RX on RHC HUT and TX on LHC TA. Adjust tuning as in the 1st test. Keep tuning and checking until you get 20 dB down or better on both RHC HUT and LHC HUT, and readings that are the same. Then go back to the RL test. Check RL. At this point do not trim monopoles any further. The delay line screws closest to the back of the horn affect RL dramatically. Adjust them to bring RL back as best as you can. Further RL adjustment can be achieved by bending the monopoles towards the back. But be careful to keep at least 75 % of the monopole length parallel with the back of the horn. Then start from the beginning again. You will probably have to re-adjust the delay screws to bring the horn back to circularity. Next you can again bring RL back to better than -25 dB by bending the monopoles. When you feel you have done the best you can, perform a linear check. Remove the hybrid, and note the power meter readings on RHC and LHC. They should be equal and 3 dB down from the ref. Rotate the linear horn slowly, the power meter should read 3 dB down without much deviation. Check isolation between RHC and LHC. You should find a least 20 dB of isolation. A crystal detector can be substituted for the power meter during the circularity tests. But remember the numbers from your meter will only be relative. Follow the same procedure as above substituting the detector for the power meter. For the RL test, you can use a Bird wattmeter or equivalent. I need to mention that the above tune up procedure was done on a HP8720C with one of my horns shortened to 12", X relays that had less than .10 dB loss, commercial 90 deg hybrid, known good terminations and all cables calibrated. With time and patience a power meter will give the same results. The idea of using a linear horn was suggested by W2UHI.

FINAL

The NL is a bit shorter this month, but still a reasonable size. You may have noticed on the masthead that the name of the college I am associated with has changed. This is just a name change. I am still at the same place.

Those in the Atlanta, GA area on 4/5 April may be interested in attending the Southeastern VHF Conference. Many of the NA EME group will be represented.

For more info contact Tad, K3TD at (770-513-9252 or e-mail: [Tad, K3TD](#) or WEB page: [SVHF](#)

TNX for all the reports. We can of course always use more technical material. Virtually all the reports are now coming in by e-mail. E-mail reports are great, and very convenient, but PLEASE do not submit lists of QSOs in column form, i.e., log copies. Although this look great on e-mail, I can not print in this form into the NL - it takes up too much space. Removing all those carriage returns and spaces is very time consuming - and tough on the wrists. I do want the reports, please keep them coming, but if possible run lists of calls horizontally together. E-mail distribution of the NL seems to be working well. This year the number of NLs mailed was down for the 1st time. We are now printing about 235 NLs versus 275 a year ago. I do not think this drop is due to a lack of interest. If anything there is more interest, judging by reports. It is just that more stations are electing to receive the NL exclusively by e-mail. I am trying to come up with a way to= include diagrams and pictures in the e-mail version. The master of every NL is sent to Rein, W6/PA0ZN for scanning of important figures and pictures into his WEB version of the NL. That about covers the news for this 29... 73,

AI - K2UYH.

EUROPEAN EME CONTEST

EME Skeds for Feb 15 and 16 1997

If you receive the 432 & Above NewsLetter from Allen, K2UYH (paper version), and your CALLSIGN does NOT appear in this list. Or there is a correction to be made please contact me, VE1ALQ as soon as possible. We know there are a number of calls that will not appear in this first printing, and for that we do apologize. But we do want to see your call in the list. Please see below at bottom of list.

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A22BW, AA4TJ, AA6WI, CX9BT, DD1XF, DF3RU, DF5YY, DF6NA, DF9QX, DJ7FJ, DJ8LQ, DJ9YW, DK3WG, DK8VS, DL4EBY, DL6WU, DL9EBL, DL9KR, DL9NDD, EA2BK, EA2LU, EA3DXU, EA3UM, F1ANH, F2TU, F5EHQ, F5HRY, F5PAU, F6CGJ, F9FT, G0BPU, G3HUL, G3LQR, G3LTF, G3SEK, G4ALH, G4ERG, G4GCM, G4RGK, GM3JFG, GW3XYW, HB9BBD, HB9BHU, HB9JAW, HB9SUL, HB9SV, I2COR, I5TDJ, I6PNN, IK1HWG, IK3COJ, IK5WJD, IK6EIW, JA2JRJ, JA2KRW, JA4BLC, JA5OVU, JA6AHB, JA6CZD, JA8ERE, JR8FLY, JA9BOH, JH0YSI, JH1MOM, JH3EAO, JH4JLV, JL1ZCG, JR1RCH, K0KJX, K0RZ, K0TLN, K1FO, K1OYB, K1RQG, K1RSA, K1VYU, K2MPH, K2OS, K2RIW, K2TKN, K2UYH, K3EAV, K3HZO, K3LFO, K3XA, K4QIF, K5AZU, K9BCT/4, K9KFR, K9ZZH, KA0RYT, KB2AH, KB3PD, KB8ZW, KB9CTS, KD6R, LA8LF, N1AXB, N2IQU, N2LIV, N4GJV, N4MW, N4PZ, N6OC, N7ART, N7AUV, N9AB, NA4N, NC1I, OE5JFL, OE6AP, OE9ERC, OE9XXI, OH2DG, OK1KIR, ON4AOD, ON4KNG, ON4UV, ON5OF, ON5RR, ON6JY, OZ4MM, PA0AVS, PA0PLY, PA0SSB, W6/PA0ZN, PA3CSG, PA3DZL, S51ZO, S56UUU, W6/SM0PYP, SM2BYA, SM3AKW, SM6CKU, SP5CJT, VE1ALQ, VE2XX, VE1ASO, VE3BQN, VE3CF, VE4MA, VE7BBG, VK1VP, VK2ALU, VK2BE, VK2FZ/4, VK3UM, VK5MC, W0KJY, W0RRY, W1CAL, W1JR, W1ZX, W2CRS, W2JWJ, W2UHI, W2WD, W3EP, W3IIT, W4HHK, W4RDI, W5RCI, W6DXJ, W6XS, W7FN, W7GBI, W7HAH, W7ID, W7VQQ, W8IDU, W8MQW, W8TN, WA4NJP, WA4OFS, WA4ZTK, WA5VJB, WA7CJO, WA7TZY, WA8WZG, WA9FWD, WB0GGM, WB2VVV, WD5AGO, WI7Z, YO2IS, ZS6AXT, ZS6JT, ZS6PT

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[432MHz & up EME skeds](#)

Please Inform Darrell, by e-mail VE1ALQ if you receive this Newsletter

and by which means (Mail/WEB etc)

This information was obtained from [Scott, KD4LT](#)

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For Comments or corrections: [Rein, W6/PA0ZN](#)
